

REMARKS

The Office Action of October 5, 1987 has been carefully reviewed. In response to that Action, Applicant has submitted a copy of a proposed corrected drawing which should remove the objections noted by the Examiner. Applicant's counsel retains the original of the drawing in order to make any further corrections prior to inking and final submission subject to allowance of the Application.

Applicant is also submitting herewith prior art references and copies of such references which it had previously prepared after the filing of the Application. These had been misplaced. Applicant apologizes for any inconvenience its delay in submitting these references may cause.

Claims 1 to 18 of the present Application have been rejected under 35 U.S.C. 103 as being unpatentable over Schneider in view of Conforti. Applicant respectfully traverses this rejection in view of the following marks:

The Schneider and Conforti patents issued within one week of each other in 1979 and issued to the same assignee, Pittway Corporation. Nevertheless, there is no mention or suggestion in either patent that the technology disclosed in one could be or should be used with the other. This is most likely because Conforti deals with DC or battery-operated smoke detectors and Schneider deals with AC operated smoke detectors. In addition, there was no suggestion in any of the art cited by the Examiner or that discovered by the Applicant in the prior art references

attached of using the method taught by the Applicant in connection with the test loading of a backup battery circuit in an AC powered smoke detector.

The subject invention relates to an AC powered smoke detector having a battery backup, which also includes a supervision circuit for monitoring the power capacity of the battery backup. Underwriter's Laboratories standard 217 requires that the battery be tested by loading rather than by detection of open circuit voltage. The present invention discloses two embodiments for doing this; one which disconnects the DC power supply for preselected time period, while in another embodiment the DC power supply is disabled. The battery is tested by actually loading the battery into a suitable load resistor.

Schneider Patent 4,138,670 discloses an AC powered smoke alarm that has a continuous battery supervision circuit which uses a meter to measure the open circuit. Schneider clearly does not suggest loading the battery. Moreover, the method suggested by Schneider is not acceptable under U.L. Standard 217. It is considered obsolete. The design is an old design which, as noted above, detects the open circuit voltage of the battery. The subject invention is completely different. It applies a load to the battery during testing.

In addition, the AC power supply in Schneider is not disconnected. This open circuit test is no longer used by the smoke detector industry. The current standards, as noted above, require the battery to be tested with an operational load. There

is no suggestion or teaching in Schneider as to how to accomplish a test under load nor any reason to consider such a test. Conforti discloses a loaded DC battery test similar to that disclosed by Paul Staby in U.S. Patent No. 3,899,732. Conforti does not deal with an AC powered smoke detector. Thus, there is no reason for Conforti to teach or suggest a means of dealing with the problem of having an AC power source, or trying to test a battery supervision circuit for an AC detector. Nor is there any suggestion that the Conforti type of battery supervision circuit could be used with an AC powered smoke detector. As noted above, Conforti and Schneider issued within one week of each other to the same assignee. Certainly, if there had been any intention or suggestion that battery detection circuit of Conforti could be used with Schneider, it would have been suggested by the same assignee using the same counsel in one or the other of the applications. It was not.

Moreover, Conforti does not disclose any of the means set forth in the independent claims in the present case for dealing with the disconnection or disabling of the DC power source. He does not have to, since he is not dealing with that problem. Schneider and Conforti issued over 8 years ago. If it had been obvious to one skill in the art to use the subject battery supervision system, as disclosed in the instant Application, it should have been done or claimed prior to the present date. Nevertheless, it is established that both the suggestion and expectation of success must be founded in the prior art, not in

Applicant's disclosures. Selective hindsight is not applicable to the combination of prior art teachings. In re Sernaker, 217 U.S.P.Q.1 (Fed. Cir. 1983,) In re Dow Chemical, (Fed. Cir. 1988 1/25/88). In the present case, there is no suggestion in either of the primary references to use one in connection with the other, nor is there any disclosure or teaching on how they might be used together to create the essence of the present invention.

Applicant has reviewed the other references cited and made of record and finds that these are not more pertinent to the subject case than those discussed. For example, Patent No. 4,419,658 to Jaroz is just a loss of AC warning detection. Patent 3,997,831 to Hopfner is irrelevant. Patent No. 4,251,811 is another version of the DC battery detection for a mechanical horn rather than a Piezo electric. This is also old technology.

The subject invention, in its manufacture, is incorporated within an integrated circuit or a similar circuit which includes the battery energy level detection. Therefore, a separate circuit does not have to be provided to supervise the battery. This is why the DC power supplied by the line voltage has to be disconnected from the smoke detection detector buss in order to check the condition of the backup battery.

For the above reasons, it is believed that the claims are allowable. If the Examiner has any questions, she is

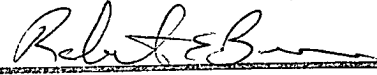
respectfully requested to call the undersigned attorney at the number given below.

Respectfully submitted,


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I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Commissioner of Patents and Trademarks, Washington, D. C. 20231, on 3/4/88

 3/4/88
Robert E. Browne, Reg. 26,150 DATE